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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,699	07/25/2003	Vito Lambertini	Q76572	2689

7590 09/16/2005

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EXAMINER	
WILLIAMS, JOSEPH L	
ART UNIT	**PAPER NUMBER**
2879	

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/626,699	LAMBERTINI ET AL.
	Examiner	Art Unit
	Joseph L. Williams	2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *13-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/4/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-12, 18, and 19 in the reply filed on 07 July 2005 is acknowledged.

Claims 13-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07 July 2005.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 10-12, 18, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by "High-efficiency luminescent sources fabricated in mesoporous anodic alumina by sol-gel synthesis" (document number XP009018574), of record by Applicant.

Regarding claim 1, XP009018574 teaches a light-emitting device, in particular a backlight device, of the type comprising a transparent substrate having a front surface and a rear surface, there being associated to the rear surface means for generating an electromagnetic radiation that is able to pass through the substrate and come out of the front surface, characterized that comprises a layer of porous alumina which operates so as to inhibit propagation of said electromagnetic radiation in the directions parallel to the plane of the substrate, thus improving the efficiency extraction light from the substrate and increasing the directionality of the emitted light.

Regarding claim 2, XP009018574 teaches the layer of alumina obtained on said front surface.

Regarding claim 10, XP009018574 teaches the generating means comprise a layer of photoluminescent phosphors designed for converting UV radiation into visible light.

Regarding claim 11, XP009018574 teaches the transparent substrate is constituted by the encapsulating glass of a source of a fluorescent lamp bulb.

Regarding claim 12, XP009018574 teaches the transparent substrate is constituted by the front glass of a cathode-ray tube (CRT) or of a display of a flat-panel type (FPD).

Regarding claim 18, XP009018574 teaches the use of anodized porous alumina as two-dimensional photonic crystal in light-emitting devices and systems, for example backlight devices and systems, in order to inhibit propagation of the light in the directions parallel to the plane of a transparent plate, thus improving the efficiency of extraction of light from the plate and increasing the directionality of the emitted light.

Regarding claim 19, XP009018574 teaches the use of anodized porous alumina as two-dimensional photonic crystal in fluorescent lamp bulbs for lighting in order to inhibit propagation of the emitted light in the directions parallel to the plane of a transparent plate, thus improving the efficiency of extraction of light from the plate and increasing the directionality of the light emitted.

Claims 1, 3, and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by "Porous Alumina Based Cathode For Organic Light-Emitting Devices" (document number XP009018639), of record by Applicant.

Regarding claim 1, XP009018639 teaches a light-emitting device, in particular a backlight device, of the type comprising a transparent substrate having a front surface and a rear surface, there being associated to the rear surface means for generating an electromagnetic radiation that is able to pass through the substrate and come out of the front surface, characterized that comprises a layer of porous alumina which operates so as to inhibit propagation of said electromagnetic radiation in the directions parallel to the

plane of the substrate, thus improving the efficiency extraction light from the substrate and increasing the directionality of the emitted light.

Regarding claim 3, XP009018639 teaches the generating means comprise a first layer of transparent material having the function of electrode and a second layer of material having the function of electrode, between the first and the second layer there being set at least one layer of electroluminescent material.

Regarding claim 5, XP009018639 teaches the first layer is directly in contact with the rear surface.

Regarding claim 6, XP009018639 teaches the layer of alumina is obtained on the first layer; on the ensemble formed by the layer of alumina and the first layer, there is set at least one layer of electroluminescent material; and the layer of alumina is structured in such a way that the electroluminescent material fills the pores of the alumina so as to be in contact both with the first layer and with the second layer.

Regarding claim 7, XP009018639 teaches the layer of alumina is obtained on said rear surface; on the layer of alumina there is deposited the first layer so as to coat the internal surfaces of the pores of the alumina; and on the ensemble formed by layer of alumina and the first layer, there is set at least one layer of electroluminescent material, part of which fills the pores of the alumina.

Regarding claim 8, XP009018639 teaches the first layer is a layer of ITO.

Regarding claim 9, XP009018639 teaches the electroluminescent material is selected the group made up of: organic electroluminescent materials, inorganic and organic semiconductors, metallic nanocrystals, and luminescent rare earths.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Porous Alumina Based Cathode For Organic Light-Emitting Devices" (document number XP009018639), of record by Applicant, in view of Utsugi et al. (US 5,093,691).

Regarding claim 4, XP009018639 teaches all of the claimed limitations except for the electrical-charge-transporting layers.

Further regarding claim 4, Utsugi ('691) teaches in figure 3 an organic EL device comprised of, in part, electrical charge transporting layers for the purpose of improving the electron flow and thus the brightness and efficiency of the display.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the electrical charge transporting layers of Utsugi in the

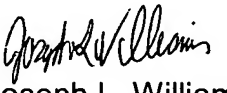
display of XP009018639 for the purpose of improving the electron flow and thus the brightness and efficiency of the display.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph L. Williams
Primary Examiner
Art Unit 2879